

Status of the Claims

The listing of claims will replace all prior versions, and listings of claims in the application.

1. (currently amended) A lithographic apparatus, comprising:
an illumination system that supplies a ~~projection~~ beam of radiation;
an array of individually controllable elements that impart the ~~projection~~ beam with a pattern;
~~a substrate table that supports a substrate during an exposure operation;~~
a projection system that projects the patterned beam onto a target portion of the a substrate;
a control system that sends a control signal to set each of the individually controllable element in a given state; and
a compensation device that adjusts the control signal applied to a first individually controllable element in the array of individually controllable elements ~~based on~~ to compensate for effects on the first individually controllable element caused by the control signal applied to at least one other individually controllable element.

2. (original) The lithographic apparatus according to claim 1, wherein the compensation device adjusts the control signal applied to the first individually controllable element based on the control signal applied to a group of individually controllable elements that are nearest neighbors of the first individually controllable element.

3. (original) The lithographic apparatus according to claim 1, wherein the compensation device adjusts the control signal applied to the first individually controllable element based on the control signal applied to a group of individually controllable elements that are next-nearest neighbors of the first individually controllable element.

4. (original) The lithographic apparatus according to claim 1, wherein the compensation device is arranged to adjust the control signal applied to the first individually controllable element based on the control signal applied to a group of individually controllable elements that are mechanically linked to the first individually controllable element.

5. (original) The lithographic apparatus according to claim 1, wherein the compensation device comprises:

a memory module that stores compensation data representing an expected effect on the first controllable element caused by a signal applied to at least one other individually controllable element.

6. (original) The lithographic apparatus according to claim 5, wherein the compensation device is coupled to the control system to provide a control signal that is sent to the first individually controllable element that is adjusted by an amount based on the control signal applied to at least one other individually controllable element and the compensation data provided by the memory module.

7. (original) The lithographic apparatus according to claim 5, wherein the compensation data takes into account one or more of the following forces: electrostatic, magnetostatic, and mechanical.

8. (original) The lithographic apparatus according to claim 5, wherein at least a contribution to the compensation data is obtained from measurements of an effect the first individually controllable element caused by a control signal applied to at least one other individually controllable element.

9. (original) The lithographic apparatus according to claim 5, wherein at least a contribution to the compensation data is obtained from a calculation of an expected effect on the first individually controllable element caused by a control signal applied to at least one other individually controllable element, the calculation being based on a geometry of the array of individually controllable elements.

10. (original) The lithographic apparatus according to claim 1, wherein the compensation device comprises:

a compensating member associated with the first individually controllable element, the compensating member being arranged to receive the control signal from the control system, adjust the level of the received signal as a predetermined function of the control signal to be applied to at least one other individually controllable element, and transmit the adjusted control signal to the first individually controllable element.

11. (original) The lithographic apparatus according to claim 1, wherein the compensation device is located on a substrate supporting the array of individually controllable elements.

12-13 (cancelled)

14. (currently amended) A manufacturing method, comprising:
using an array of individually controllable elements to impart a projection beam with a pattern in its cross-section;
projecting the patterned beam of radiation onto a target portion of a substrate;
applying a control signal to each of a plurality of the individually controllable elements to set each of the plurality of individually controllable elements in a desired state; and
adjusting the control signal applied to a first one of the plurality of individually controllable elements based on to compensate for effects on the first individually controllable element caused by the control signal to be applied to at least one other individually controllable element.

15. (new) The method of claim 14, wherein the adjusting step adjusts the control signal applied to the first individually controllable element based on the control signal applied to a group of individually controllable elements that are a nearest neighbor or a next-nearest neighbor of the first individually controllable element.

16. (new) The method of claim 14, wherein the adjusting step adjusts the control signal applied to the first individually controllable element based on the control signal applied to a group of individually controllable elements that are mechanically linked to the first individually controllable element.

17. (new) The method of claim 14, wherein the adjusting step utilizes stored compensation data representing an expected effect on the first controllable element caused by the control signal applied to the at least one other individually controllable element.

18. (new) The method of claim 17, wherein at least a contribution to the compensation data is obtained from measurements of an effect on the first individually controllable element caused by the control signal applied to the at least one other individually controllable element.

19. (new) The method of claim 17, wherein at least a contribution to the compensation data is obtained from a calculation of an expected effect on the first individually controllable element caused by the control signal applied to the at least one other individually controllable element, the calculation being based on a geometry of the array of individually controllable elements.

20. (new) The method of claim 14, wherein the adjusting step comprises:
- receiving the control signal for the first one of the plurality of individually controllable elements;
 - adjusting a level of the received control signal as a predetermined function of the control signal to be applied to the at least one other individually controllable element; and
 - transmitting the adjusted control signal to the first individually controllable element.